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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,585	07/11/2003	Donald Albert Paquet JR.	FA1048	3692
23906	7590	07/26/2007	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			CHEUNG, WILLIAM K	
ART UNIT		PAPER NUMBER		
1713				
MAIL DATE		DELIVERY MODE		
07/26/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/617,585	PAQUET ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	William K. Cheung	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 5/3/07.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-26 is/are pending in the application.  
4a) Of the above claim(s) 2,4 and 22-25 is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1,3,5-21 and 26 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_

5)  Notice of Informal Patent Application

6)  Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-26 are pending. Claims 22-25 are drawn to non-elected subject matter.

2. Applicants' affirmation of the species election without traverse is acknowledged.

When the elected species is found allowable, the examiner will continue to examine the next species, which includes claim 2, 4.

3. In view of the terminal disclaimer filed May 3, 2007, the rejection of Claims 1, 3, 5-21, 26 provisionally under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of copending Application No. 10/109,948, claims 1-10 of copending Application No. 10/120,127, and claims 1-10 of copending Application No. 10/109,947, is withdrawn. Further, the rejection of Claims 1, 3, 5-21, 26 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,558,745, claim 1 of U.S. Patent No. 6,562,893, and claim 1 of U.S. Patent No. 6,551,712, is withdrawn.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 5-11, 13-21, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Rink et al. (US 6,013,739) for the reasons adequately set forth from paragraph 8 of the non-final rejection of December 4, 2006.

Applicant's arguments filed May 3, 2007 have been fully considered but they are not persuasive. Applicants argue that Rink et al. are silent on the combination of non-functional acrylate(s) with functional methacrylate(s). Applicants fail to recognize that Rink et al. (col. 18, claim 1, (a) and (c)) clearly disclose functional methacrylates and non-functional acrylate as defined by applicants' specification (page 7).

The **non-functional acrylate monomer** can be provided with one or more groups selected from the group consisting of linear C1 to C20 alkyl, branched C3 to C20 alkyl, cyclic C3 to C20 alkyl, bicyclic or polycyclic C5 to C20 alkyl, aromatic with 2 to 3 rings, phenyl, C1 to C20 fluorocarbon and a combination thereof. The **functional methacrylate monomer** is provided with one or more groups selected from the group consisting of hydroxyl, carboxyl, acetoacetoxy, primary and secondary amine, epoxy and a combination thereof.

Some of the one or more **non-functional acrylate monomers** in the monomer mixture include methyl acrylate, ethyl acrylate, propyl acrylate, butyl acrylate, pentyl acrylate, hexyl acrylate, octyl acrylate, nonyl acrylate, isodecyl acrylate, and lauryl acrylate; branched alkyl monomers, such as isobutyl acrylate, t-butyl acrylate and 2-ethylhexyl acrylate; and cyclic alkyl monomers, such as cyclohexyl acrylate, methylcyclohexyl acrylate, trimethylcyclohexyl acrylate,

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tertiarybutylcyclohexyl acrylate and isobomyl acrylate. Isobomyl acrylate and butyl acrylate are preferred.

Some of the specific **functional methacrylate monomers** in the monomer mixture can include hydroxyalkyl methacrylates, such as hydroxyethyl methacrylate, hydroxy propyl methacrylate, hydroxyisopropyl methacrylate, hydroxybutyl methacrylate; aminoalkyl methacrylates, such as tertiarybutylaminoethyl methacrylate and N-methylaminoethyl methacrylate; glycidyl methacrylate, methacrylic acid and acetoacetoxymethyl methacrylate. Hydroxyethyl methacrylate and hydroxybutyl methacrylate are preferred.

6. Claims 1, 3, 5-21, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Yahkind et al. (US 6,753,386) for the reasons adequately set forth from paragraph 9 of the non-final rejection of December 4, 2006.

Applicant's arguments filed May 3, 2007 have been fully considered but they are not persuasive. Applicants argue that Yahkind et al. are silent on the combination of non-functional acrylate(s) with functional methacrylate(s). Applicants fail to recognize that Yahkind et al. clearly teach a non-functional acrylate (butyl acrylate) (col. 21, line 6) and a functional methacrylate (col. 21, line 7), methacrylic acid, as defined by applicants' specification (page 7).

The **non-functional acrylate monomer** can be provided with one or more groups selected from the group consisting of linear C1 to C20 alkyl, branched C3 to C20 alkyl, cyclic C3 to C20 alkyl, bicyclic or polycyclic C5 to C20 alkyl, aromatic with 2 to 3 rings, phenyl, C1 to C20 fluorocarbon and a combination thereof. The **functional methacrylate monomer** is provided with one or more groups selected from the group consisting of hydroxyl, carboxyl, acetoacetoxyl, primary and secondary amine, epoxy and a combination thereof.

Some of the one or more **non-functional acrylate monomers** in the monomer mixture include methyl acrylate, ethyl acrylate, propyl acrylate, butyl acrylate, pentyl acrylate, hexyl acrylate, octyl acrylate, nonyl acrylate, isodecyl acrylate, and lauryl acrylate; branched alkyl monomers, such as isobutyl acrylate, t-butyl acrylate and 2-ethylhexyl acrylate; and cyclic alkyl monomers, such as cyclohexyl acrylate, methylcyclohexyl acrylate, trimethylcyclohexyl acrylate,

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tertiarybutylcyclohexyl acrylate and isobomyl acrylate. Isobomyl acrylate and butyl acrylate are preferred.

Some of the specific **functional methacrylate monomers** in the monomer mixture can include hydroxyalkyl methacrylates, such as hydroxyethyl methacrylate, hydroxy propyl methacrylate, hydroxyisopropyl methacrylate, hydroxybutyl methacrylate; aminoalkyl methacrylates, such as tertiarybutylaminoethyl methacrylate and N-methylaminoethyl methacrylate; glycidyl methacrylate, methacrylic acid and acetoacetoxyethyl methacrylate. Hydroxyethyl methacrylate and hydroxybutyl methacrylate are preferred.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rink et al. (US 6,013,739) in view of Roesler et al. (US 2003/0232942 A1), for the reasons adequately set forth from paragraph 11 of the non-final rejection of December 4, 2006.

Applicant's arguments filed May 3, 2007 have been fully considered but they are not persuasive. Applicants argue that Rink et al. are silent on the combination of non-functional acrylate(s) with functional methacrylate(s). Applicants fail to recognize that Rink et al. (col. 18, claim 1, (a) and (c)) clearly disclose functional methacrylates and non-functional acrylate as defined by applicants' specification (page 7).

Applicants also argue that the elimination of the second step in an indication of non obvious. However, contrary to applicants' belief, according to MPEP 2144.04, the elimination of a non-essential step is considered obvious. Motivated by the expectation of success of simplifying a process, it would have been obvious to one of ordinary skill in art to eliminate a step that is no longer desired. MPEP 2144.04 clearly discloses that an omission of an element and its function is obvious if the function of the element is not desired. Ex parte Wu, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989).

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William K. Cheung, Ph. D.

Primary Examiner

July 18, 2007

WILLIAM K. CHEUNG  
PRIMARY EXAMINER